

**EFFECTIVENESS OF EXTERNAL TECHNOLOGY TRANSFER
TO CEPP, UTM**

CHEONG YEE WAH

UNIVERSITI TEKNOLOGI MALAYSIA

**EFFECTIVENESS OF EXTERNAL TECHNOLOGY TRANSFER
TO CEPP, UTM**

CHEONG YEE WAH

**This dissertation is submitted in partial fulfilment of the requirements for the
award of the degree of Master of Management (Technology).**

**Faculty of Management and Human Resources Development
Universiti Teknologi Malaysia**

DECEMBER, 2010

Dedicated to my beloved father, mother, friends, lecturers, and relatives

ACKNOWLEDGEMENT

I would like to confine my appreciation to my supervisor, Dr. Noraini binti Abu Talib and the administration department of SPS for giving the guideline and information during accomplishment of this study. Regard to the helping, I am able to carry out the research smoothly and hand on time.

Besides, I would like to extent the appreciation to my course mate as they are assist me during I am confronted problems with the data analysis which preoccupied a major element for the research reliability. Indeed, their willingness to feedback that information for me makes the research progress smoothly. By the way, the administrator from Pustakaan Sultanah Zanariah (PSZ) had assisted me a lot during gathering of information required along the research is carried out.

Lastly, I need to thanks to my family for giving me the fully support in term of encouragement, lovely respond when I am lack of patient in proceeding my study.

ABSTRACT

External technology transfer becomes more important as the increase of interdependent of the world due to globalization. Therefore linkage between research centre and industry is critical for both institutes to survival in this competitive landscape. The industry required advance technology to compete in global market while the research centre needs industry knowledge to sustain the continuous developing applicable technology. As a result, how effective the transfer of those technologies was concerned by scholar. Hence the study is carried out to investigate the factors that influence technology transfer from the industry to the research centre of UTM-Chemical Engineering Pilot Plant (CEPP) in Skudai, Johor. The objective of research is investigate the factor that influence the CEPP technology transfer project and clarify how the factor influence the effectiveness of CEPP technology transfer project. Factors that studied included: prior experience of transferor and transferee, inter-organizational interaction, nature of technology and culture difference. Set of interview questions were derived to conduct interview with 4 key personnel from the CEPP technology transfer project. The qualitative data gathered was analyzed by Miles and Hurberman (1994) to identify the pattern and themes. According to the findings, all of the factors show positive effective on the technology transfer performance except culture difference. This may due to the culture embedded by both parties is not significant different. It was recommended that embedded 'open' culture and cross functional interaction could improve efficiency during technology transfer.

ABSTRAK

Pemindahan teknologi secara luaran semakin penting sementara dunia terjejas daripada kesan-kesan era globalisasi. Demikian, perhubungan antara industri dan pusat penyelidikan semakin kritikal untuk memanfaatkan kedua-dua pihak. Industri memerlukan teknologi tambahan untuk bersaing di era globalisasi manakala pusat penyelidikan memerlukan ilmu teknologi daripada industri untuk penyelidikan dalam bidang aplikasi teknologi. Oleh sebab itu, keberkesanan pemindahan teknologi dapat menarik perhatian daripada penyelidik. Dengan itu, penyelidikan dijalankan untuk mengkaji faktor-faktor yang mempengaruhi keberkesanan pemindahan teknologi dari industri ke pusat penyelidikan UTM, iaitu Loji Pandu Kejuruteraan Kimia (CEPP) di Skudai, Johor. Objektif bagi penyelidikan ini adalah menentukan faktor-faktor yang mempengaruhi keberkesanan projek pemindahan teknologi CEPP dan menjelaskan bagaimana faktor-faktor yang mempengaruhi keberkesanan projek pemindahan teknologi CEPP. Faktor-faktor yang dikaji termasuk: pengalaman pemindah dan penerima, interaksi antara organisasi, jenis teknologi dan perbezaan budaya. Persoalan temuhramah telah disediakan untuk mengutip data daripada 4 orang penting dalam projek pemindahan teknologi CEPP. Kualitatif data yang dikumpul telah dianalisis dengan menggunakan Miles and Huberman (1994) method. Keputusan menunjukkan semua faktor memberi kesan kepada prestasi teknologi pemindahan CEPP kecuali perbezaan budaya. Ini disebabkan oleh perbezaan budaya pemindah dan penerima tidak ketara. Akhirnya, praktik budaya 'buka' dan interaksi antara kumpulan fungsi boleh memperbaiki keberkesanan pemindahan teknologi.